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(54) **PRODUITS MEDICAUX OBTENUS A PARTIR DU CHANVRE EN UTILISANT DES PROFILES DE  
CANNABINOIDES COMME INDICATEURS D'EFFICACITE**

(54) **MEDICINAL PRODUCTS CREATED FROM CANNABIS USING CANNABINOID PROFILES AS INDICATORS OF  
EFFICACY**

(57)

A process is described whereby a back-crossing protocol is used to create cannabis plants which are further standardized into medicinal products. A specific lighting regime is first used to bring a cloned plant to the vegetative stage followed by treatment with defined type of Gibberellic Acid (GA3) which stimulates sex reversal; from a female to a male. The pollen from this new male is used to pollenate the mother plant with her own pollen. This procedure creates a new variety of true breeding plant with a reproducible genome, which can be cloned into more plants. Confirmation of reproducibility is achieved us Gas Chromatography/ Mass Spectroscopy (GC/MS) to determine the Cannabinoid Profile of the pollinated plant. This cannabinoid profile is used as an index for the type of medicinal product which can be produced. Once this profile is established the raw material is ground into a powder, the cannabinoid profile is re-verified and the powder can be used as a medicine for symptom relief from many different ailments such as epileptic siezures, glaucoma, nausea/pain, multiple sclerosis tremors, migraine, fibromyalgia, hepatitis, depression, anorexia, anxiety. Route of administration of this powder can be made either oral or by smoking.



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(54) **Titre :** PRODUITS MEDICAUX OBTENUS A PARTIR DU CHANVRE EN UTILISANT DES PROFILS DE  
CANNABINOIDES COMME INDICATEURS D'EFFICACITE

(54) **Title:** MEDICINAL PRODUCTS CREATED FROM CANNABIS USING CANNABINOID PROFILES AS INDICATORS  
OF EFFICACY

(57) **Abrégé/Abstract:**

A process is described whereby a back-crossing protocol is used to create cannabis plants which are further standardized into medicinal products. A specific lighting regime is first used to bring a cloned plant to the vegetative stage followed by treatment with defined type of Gibberellic Acid (GA3) which stimulates sex reversal; from a female to a male. The pollen from this new male is used to pollenate the mother plant with her own pollen. This procedure creates a new variety of true breeding plant with a reproducible genome, which can be cloned into more plants. Confirmation of reproducibility is achieved us Gas Chromatography/ Mass Spectroscopy (GC/MS) to determine the Cannabinoid Profile of the pollinated plant. This cannabinoid profile is used as an index for the type of medicinal product which can be produced. Once this profile is established the raw material is gound into a powder, the cannabinoid profile is re-verified and the powder can be used as a medicine for symptom relief from many different ailments such as epileptic siezures, glaucoma, nausea/pain, multiple sclerosis tremors, migraine, fibromyalgia, hepatitis, depression, anorexia, anxiety. Route of administration of this powder can be made either oral or by smoking.



**Abstract:**

A process is described whereby a back-crossing protocol is used to create cannabis plants which are further standardized into medicinal products. A specific lighting regime is first used to bring a cloned plant to the vegetative stage followed by treatment with defined type of Gibberellic Acid (GA3) which stimulates sex reversal; from a female to a male. The pollen from this new male is used to pollenate the mother plant with her own pollen. This procedure creates a new variety of true breeding plant with a reproducible genome, which can be cloned into more plants. Confirmation of reproducibility is achieved us Gas Chromatography/ Mass Spectroscopy (GC/MS) to determine the Cannabinoid Profile of the pollinated plant. This cannabinoid profile is used as an index for the type of medicinal product which can be produced. Once this profile is established the raw material is ground into a powder, the cannabinoid profile is re-verified and the powder can be used as a medicine for symptom relief from many different ailments such as epileptic siezures, glaucoma, nausea/pain, multiple sclerosis tremors, migraine, fibromyalgia, hepatitis, depression, anorexia, anxiety. Route of administration of this powder can be made either oral or by smoking.

**Cannabis Medicinals Formulation**

Back-crossing of a given strain of cannabis is used to create a standardized medicinal product as verified by the cannabinoid profile. This medicine can be used for symptom relief from many different conditions.

**Background of the Invention**

The medicinal properties of cannabis have been known for thousands of years. Chinese medicine men were prescribing it as a treatment for epileptic seizures in 400 BC. Much more recently a host of scientific data is establishing the role of cannabis as an effective medicine for symptom relief from many different ailments. A method of creating a true breeding strain of cannabis is described which can, in turn, be used to

devise a standardized medicinal product. Standardization is based on the cannabinoid profile, a group of compounds which can be identified and quantitated by GC/MS or by HPLC with a diode array detector. It is these compounds which give cannabis its symptom relieving properties. Knowledge of a given cannabinoid profile allows a practitioner to determine which ailment the medicine can be applied to. In addition, knowledge of the cannabinoid profile allows blending of the powdered cannabis material into a product with distinct cannabinoid ratios to illicit a standardized product.

**Objectives of the Invention**

It is an objective of this invention to produce cannabis clones with defined cannabinoid profiles which can be used as a medicine.

A further objective of this invention is to establish a standard operating procedure of back-crossing to produce a new variety of cannabis plants which can be used as a raw material for producing a medicine.

A further objective of this invention to use cannabinoid profiles determined by Gas Chromatography or by HPLC as an indicator to medicinal properties.

A further objective of this invention is to standardize the product using a back-crossing technique to produce standardized true breeding plants with defined cannabinoid profiles.

A further objective of this invention is to produce a standardized cannabis powder which can be blended with other standardized cannabis powders to make a product containing known amounts of specific cannabinoids.

A further objective of this invention is to establish standard operating procedures whereby reproducible medicinal products can be fabricated from cannabis.

**Summary of the Invention**

According to the present invention a process is described whereby new varieties of cannabis plants can be created which are true breeding. These true breeding plants are standardized to contain known amounts of specific cannabinoid compounds which allow symptom relief from many different ailments. These products are standardized based on their cannabinoid profiles.